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Reading with Insight

1. 'The world's geological history is trapped in Antarctica.' How is the study of this region useful to us?

Answer.

The world's geological history is indeed trapped in Antarctica. The study of the region of Antarctica gives us an insight into the world's geological history. This is because the current world is battling with the growing population, and the extreme burning of fossil fuels has formed a blanket of carbon dioxide around the earth, which is the main cause of global warming. Antarctica is a crucial element in the debate on climate change because it is relatively 'pristine'. It is because 650 million years ago, Gondwana land existed in the southern part of the earth where Antarctica is currently situated. It contained a rich variety of flora and fauna. For 500 million years, Gondwana flourished, and later the landmass was forced to separate into countries, shaping the globe much as we know it today. All secrets are embedded in the layers of the ice in the form of 500-million-year-old carbon records. Hence, to study the earth's past, Antarctica is the best place.

2. What are Geoff Green's reasons for including high school students in the Students on Ice expedition?

Answer.

Geoff Green took the high school students to one end of the world to give them a chance to develop respect and knowledge for the earth. He included high school students in the ice expedition because with students on the ice expedition, he offered future policymakers to experience how difficult it would have been for the earth to sustain life by raising its warmth. At a young age, when the process of good values develops in their life, it will also assist them in knowing more about their planet.

3. 'Take care of the small things and the big things will take care of themselves.' What is the relevance of this statement in the context of the Antarctic environment?

Answer.

'Take care of the small things, and the big things will take care of themselves.' is a relevant statement to the Antarctic environment. A small environmental change can give rise to dramatic developments. Because of the small biodiversity and simple ecosystem, Antarctica is the best place to study the small changes in the environment that have big consequences. For example, consider the microscopic phytoplankton — these grasses of the sea feed and support the entire Southern Ocean's food chain. These single-celled plants use the sun's energy to absorb carbon dioxide and manufacture organic compounds, and this important process is called photosynthesis. Scientists caution that more depletion in the ozone layer will affect the activities of phytoplankton, which in turn affect the marine life's food chain. From this example of the phytoplankton, there is a great metaphor for existence: take care of the small things, and the big things will fall into place.

4. Why is Antarctica the place to go to, to understand the earth's present, past and future?

Answer.

Antarctica is the best place to understand the earth's present, past, and future because it holds in its ice cores, half a million-year-old carbon records trapped in its layers of ice. Antarctica gives an idea of how the earth would have been like millions of years ago and how it formed into different masses of earth. Antarctica has a vibrant diversity of flora and fauna as a rich heritage of the past. Therefore, Antarctica is a place to understand the earth's present, past and future.